

2006 Annual Drinking Water Quality Report

Although the base does not hold public meetings on its distribution systems, we are available to address any questions you may have.

Please contact Hurlburt Field's Public Affairs Office at 884-7464. We encourage our valued customers to be informed about their water utility.

Housing residents should contact the Military Family Housing Office 884-7505 with any water concerns.

Dormitory residents should contact their building manager.



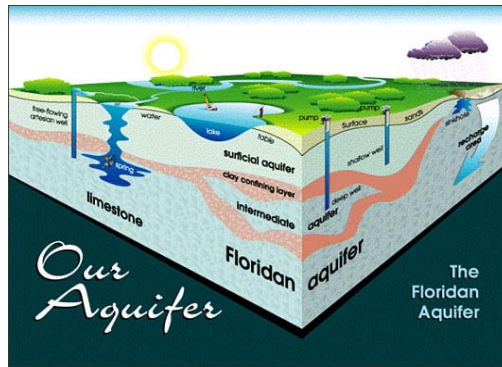
We are very pleased to provide you with this year's **Annual Water Quality Report**. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is, and always has been, to provide you a safe and dependable supply of drinking water. Our water source is ground water from five (5) wells. The wells draw from the Floridan Aquifer.

In 2004 the Department of Environmental Protection (DEP) performed a Source Water Assessment on our system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are five potential sources of contamination identified for this system with a low to moderate susceptibility level. The assessment results are available on the FDEP Source Water Assessment and Protection Program (SWAPP) website at www.dep.state.fl.us/swapp or they can be obtained from the Hurlburt Field Bioenvironmental Engineering Flight at 881-1820.

Hurlburt Field routinely monitors for contaminants in your drinking water according to Federal and State laws, rules, and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2006. Data obtained before January 1, 2006, and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

We at Hurlburt Field work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

NORMAN J. BROZENICK, JR., Col, USAF
Commander, 1st Special Operations Wing



Where Do We Get Our Drinking Water?

Hurlburt Field draws its drinking water from the **Floridan Aquifer**, several hundred feet below ground. Through a series of five wells, water is pumped, treated, and then distributed around the base to ensure we are never without a source of potable water.

Due to the exceptional quality of this groundwater source, chlorine disinfection is the only treatment process required to produce a safe product for our community.

Commando Village obtains its water from the Okaloosa County distribution system. They will provide you a copy of their drinking water quality report.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive materials, and can pick up substances resulting from the presence of animals or human activity.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800)426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Contaminants Which May Be Present in Source Water

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and **herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

FOR THE KIDS

Objective: To teach about the geologic formations in an aquifer, how pollution can get into groundwater and how pumping can cause a decline in the water table.

Materials Needed: Blue/red food coloring or soda. Vanilla ice cream (one 5-quart bucket yields 60 aquifers at one generous scoop per person). Clear soda pop. Small gummy bears, chocolate chips, crushed cookies, cereal, crushed ice, variety of colored cake decoration sprinkles and sugars. Drinking straws. Clear plastic cups. Ice Cream scoop. Spoons.

Activity Steps

1. Begin to construct your edible aquifer by filling a clear plastic cup 1/3 full with gummy bears, chocolate chips, or crushed ice (represents gravels and soils)
2. Add enough soda to just cover the candy/ice.
3. Add a layer of ice cream to serve as a "confining layer" over the water-filled aquifer. Discuss what a confining layer is/does.
4. Add more "sand/gravel" on top of the "confining layer."
5. Colored sugars and sprinkles represent soils and should be sprinkled over the top to create the porous top layer (top soil).
6. Add the food coloring to the soda. The food coloring represents contamination. Watch what happens when it is poured on the top of the "aquifer." Point out that the same thing happens when contaminants are spilled on the earth's surface.
7. Using a drinking straw, drill a well into the center of your aquifer.
8. Slowly begin to pump the well by sucking on the straw. Watch the decline in the water table.
9. Notice how the contaminants can get sucked into the well area and end up in the groundwater by leaking through the confining layer.
10. Recharge your aquifer by adding more soda to represents a rain shower.
11. Review what you have learned as you enjoy eating your edible aquifer!



Water Conservation Policy

Stage 1

Water Watch-(Green Flag)

Odd # Buildings/Houses on Odd # Days

Even # Buildings/Houses on Even # Days

0600-1000 or 1800-2200 (But not both times)

No more than 30 minutes

Sod Restrictions: May water each day for the first 30 days after planting, but never between the hours 1000-1800

Stage 2

Water Warning-(Yellow Flag)

Odd # Buildings/Houses on Tuesday and Saturday

Even # Buildings/Houses on Thursday and Sunday

0600-1000 or 1800-2200 (But not both times) *Exception : Private sand-and-gravel users may water both times if desired)*

No more than 30 minutes

Sod Restrictions: Limited to watering every other day for the first 30 days but never between the hours of 1000-1800

CAR WASHES ARE PROHIBITED. (Washing of cars is limited to commercial car washes)

SEEDING IS PROHIBITED.

Stage 3

Water Crisis-(Red Flag)

OUTDOOR USE OF WATER IS PROHIBITED.

CAR WASHES ARE PROHIBITED.

(Washing of cars is limited to commercial car washes)

SEEDING IS PROHIBITED.

LAYING OF SOD IS PROHIBITED.

Water uses regulated or prohibited under this Water Conservation Policy are considered non-essential and continuation of such uses during times of water shortage or other emergency water supply conditions constitute a waste of water and offenders will be held accountable.

** Notification of changes in the current base water conservation stage will be publicized in the base newspaper and on the marquees at the gates

Water Conservation Tips

1. Water lawns only when needed. Step on your grass. If it springs back when you lift your foot, it doesn't need water. So set your sprinklers for more days in between watering. **Saves 750-1,500 gal/month.**
2. Fix leaky faucets/plumbing joints. **Saves 20 gal/day** for every leak stopped.
3. Don't run the hose while washing your car. Use a bucket of water and a quick hose rinse at the end. **Saves 150 gallons** each time. For a two-car family that's **up to 1,200 gal/month.**
4. Run only full loads in the washing machine and dishwasher. **Saves 300—800 gal/ month.**
5. Shorten your showers. Even a one or two minute reduction can **save up to 700 gal/ month.**
6. Capture tap water. While you wait for hot water to come down the pipes, catch the flow in a watering can to use later on house plants or your garden. **Saves 200 - 300 gal/month.**
7. Don't water the sidewalks, driveway or gutter. Adjust your sprinklers so that water lands on your lawn or garden where it belongs. **Saves 500 gal/month.**

TERMS AND ABBREVIATIONS

In the table below, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions:

Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as viable using the best available treatment technology.

Maximum Contaminant Level Goal or MCLG: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Maximum Residual Disinfectant Level or MRDL: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal or MRDLG: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

“ND” means not detected and indicates the substance was not found by laboratory analysis.

Parts per million (ppm) or Milligrams per liter (mg/l): One part of analyte to 1 million parts of the water sample.

Parts per billion (ppb) or Micrograms per liter (mg/l): One part of analyte to 1 billion parts of water sample.

Picocurie per liter (pCi/L): Measure of radioactivity in water.

RADIOLOGICAL CONTAMINANTS							
Contaminant and Unit of Measurement	Dates of sampling	MCL Violation Y/N	Level Detected*	Range of Results	MCLG	MCL	Likely Source of Contamination
ALPHA EMITTERS (pCi/L)	2-Ju	N	3	2.3 – 3.0	0	15	Erosion of natural deposits
RADIUM 226 + 228 OR COMBINED RADIUM (pCi/L)	2-Ju	N	0.7	0.6 – 3.7	0	5	Erosion of natural deposits
INORGANIC CONTAMINANTS							
FLUORIDE (ppm)	5-Ju	N	1	0.6 – 1.0	4	4	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
NITRATE (AS NITROGEN) (ppm)	6-Aug	N	0.1	ND – 0.1	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
SODIUM (ppm)	5-Ju	N	133	117.1 – 139.3	N/A	160	Salt water intrusion, leaching from soil
TTHMs AND STAGE 1 DBP DISINFECTANT DISINFECTION BY-PRODUCT (DDBP) CONTAMINANTS**							
Contaminant and Unit of Measurement	Dates of sampling	MCL Violation Y/N	Level Detected*	Range of Results	MCLG or MMDLG	MCL or MRDL	Likely Source of Contamination
CHLORINE* (ppm)	Jan – Dec 06	N	RAA = 0.96	0.5 – 1.7	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
HALOACETIC ACIDS (FIVE) (HAA5) (ppb)	Jan – Dec 05	N	7.14	ND – 10.7	N/A	MCL = 80	By-product of drinking water disinfection
TTHM (TOTAL TRIHALOMETHANES) (ppb)	Jan – Dec 05	N	26.32	7.7 – 49.6	N/A	MCL = 80	By-product of drinking water disinfection
LEAD AND COPPER (TAP WATER)							
Contaminant and Unit of Measurement	Dates of sampling	AL Violation Y/N	50th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
COPPER (TAP WATER) (ppm)	Jul – Sep 05	N	0.59*	0 of 20	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
LEAD (TAP WATER) (ppb)	Jun – Sep 05	N	5	0 of 20	0	15	Corrosion of household plumbing systems, erosion of natural deposits
* Results in the Level Detected column for radiological contaminants, inorganic contaminants, synthetic organic contaminants including pesticides and herbicides, and volatile organic contaminants are the highest average of any of the sampling points or the highest detected value at any sampling point, depending on the sampling frequency.							
** For the following parameters monitored under Stage 1 DBP regulations, the level detected is the highest annual average (including annual average – RAA) of the quarterly averages (chlorine) or the annual average of the quarterly averages (haloacetic acids and TTHM (MCL 80 ppb)). Range of Results is the range of results (lowest to highest) at the individual sampling sites, including 100% results.							
* As a general guideline, starting point for tap water should contain 2- to 3-ppm of chlorine throughout an automated water logging system. As a final check for adequate chlorination we test the microbial quality of water samples.							

We are pleased to announce that our drinking water meets all federal and state requirements.